Master of Science in Data Science & Machine Learning (MDSML)

Department of Mathematics
National University of Singapore
Prospective students

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Introduction

› The M.Sc. in Data Science and Machine Learning programme is offered jointly by the Department of Mathematics, the Department of Statistics and Applied Probability and the Department of Computer Science with support from the Faculty of Engineering, and the Saw Swee Hock School of Public Health. This one-year full-time programme will help to meet the growing demands for big-data professionals by transforming graduates with Bachelor degrees in quantitative science (e.g. mathematics, applied mathematics, statistics and physics) into practitioners.

› The curriculum incorporates inter-disciplinary learning from computer science, mathematics and statistics. It also combines data analytics with machine learning. In addition to learning knowledge in data science, students will also have opportunities to explore the integration of machine learning and data analysis in sectors such as financial industry, healthcare and government.
Admission Requirement

› Graduates with Bachelor (Hons) degrees in quantitative sciences (e.g. mathematics, applied mathematics, statistics and physics) or Engineering or Computer Science

› A candidate whose medium of undergraduate instruction is not English must pass TOEFL (with the minimum score 580 for the paper-based test or 85 for the internet-based test) or IELTS (with the minimum score 6.0).
Course Fee & Payment of Fees

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Fee (SGD) (before GST)</th>
<th>Acceptance Fee (SGD)</th>
</tr>
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<tbody>
<tr>
<td>2020/2021</td>
<td>45,000.00</td>
<td>5,000.00</td>
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› Singapore Citizens (SC)/Singapore Permanent Residents (SPR) may be eligible to receive course fee subsidies for SSG-funded modular courses before they matriculate into the MSc programme.

› No scholarship support is available.

› For other fee component, please refer [here](#).

› For application fee payment, please refer [here](#).
Candidature Period

<table>
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<tr>
<th>Full Time</th>
<th>Part Time</th>
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<tr>
<td>1-2 yrs</td>
<td>2-4 yrs</td>
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Candidature for this coursework programme range from one to two years for full time studies and two to four years for part time studies.
NUS Academic Calendar

› The standard academic calendar consists of two semesters and a special term. Each semester normally includes 13 weeks of instruction and 2 weeks of examinations. The special term takes place during the Semester 2 vacation period. It comprises two parts, each of which lasts 6 weeks and is inclusive of an examination period.

› Click [here](#) to view NUS academic calendar.
Application Procedure

› Apply Online.
› Applicants are to read the detailed procedure here.
› Referee Reports are not required for application to the programme.

Note:
› Applications and/or payment received after the closing dates will not be processed for that intake. Incomplete applications will also not be processed.
› Shortlisted candidates may be required to sit for an interview. They will be informed of the details in due course.

Closing date:
› 15 March, for consideration of admission in the August term of the current year.
Overview of Programme Structure

MSc in Data Science and Machine Learning
-A Programme with Multiple Specializations

Core Modules
- 20 MCs

Elective Modules
- 20 MCs

50 Modular Credits (MCs)

Five Core Modules
- Introduction to Big Data for Industry
- Optimisation for Large-Scale Data-Driven Inference
- Foundations of Machine Learning
- Cloud Computing
- DSML Industry Consulting and Applications Project

Five Elective Modules in 7 Graduate Certificate (GC) Tracks and 3 Clusters to Choose From
(Read five elective modules from at least two tracks/cluster to make up 20 MCs)
- GC in Deep Learning for Data Scientists
- GC in Data Mining for Industry
- GC in Big Data for Industry
- GC in Data Science in Computer Vision
- GC in Data Science in Quantitative Finance
- GC in Data Science in Internet of Things
- GC in Health Informatics
- Cluster in Mathematics
- Cluster in Statistics
- Cluster in Computing
Graduation Requirement

› Read and pass five core modules (refer to slide number 10).
› Read and pass five elective modules from at least two Graduate Certificate (GC) Tracks / Clusters (refer to slide number 10).
› Obtain a minimum Cumulated Average Point (CAP) of 3.00 or an average grade of at least B-.

Continuation Requirement

› A student will be issued a warning for any semester in which his/her CAP falls below 3.00. If in the following semester, the student’s CAP again falls below 3.00 but is above 2.50, he/she will be placed on probation.
Continuation Requirement – c’tinue

› The candidature of a student may be terminated if he/she obtains the following:
  1. A CAP of less than 2.50 for two consecutive semesters;
  2. A CAP of less than 3.00 for three consecutive semesters.
› CAP for continuation is computed based on all modules read (be it pass or fail).
Module Registration

› Students use Module Registration function at Education Records System (ModReg@EduRec) for module and tutorial registration.
  – Please click [here](#) to view the workflow of Module Registration Process as well as information pertaining to module selection.

› Students are responsible in ensuring that
  – They meet the prerequisites for the modules that they wish to register for (new graduate students who hold foreign qualifications should ensure that they have adequate background knowledge to read basic modules in the first year);
  – They are able to attend the classes and sit for the examinations as scheduled;
  – There are no class and examination timetable clashes in the modules registered in the same semester;
  – They plan their study wisely based on the graduation requirements.
Module Registration – c’tinue

› Full time students may read up to five modules per regular semester (not including ES module pre-designated by CELC), while a part-time students may only read up to three modules per regular semester (not including ES module pre-designated by CELC).

› For list of modules offered, please click here.

› For class timetable, please click here.
  – Class timetables are published about one month before a semester begins. Students may still plan ahead for an entire academic year but should note that the unpublished timetable is subject to change without notice.
Leave Application

› Students are required to apply for Leave of Absence if they have to be away during their candidature or are unable to read any modules in any semester. The period of absence will be included in the maximum period of candidature.

› Application for leave of absence should be submitted prior to the start of the semester. If a student applies for leave of absence after the second instructional week of the semester, he/she will be liable to pay fees for the entire semester.

› A student who has to leave the programme for more than one year will have to withdraw from the programme.

› All leave applications are to be submitted online. Students who are absent without leave are subject to disciplinary actions.
Useful Info for Students who are graduating

› Degree Conferment and Commencement
› Degree Scroll Collection
› Transcript (requesting and collection)
Contact Us

Department of Mathematics
National University of Singapore
Level 4, Block S17
10 Lower Kent Ridge Road
Singapore 119076

Tel: +65 6516 2762

Queries

› Interested applicants are welcome to drop us an email at askmathpg@nus.edu.sg or call us at +65 6516 2762.

› Queries pertaining to acknowledgement of receipt of applications/supporting documents and/or admission status will not be entertained.